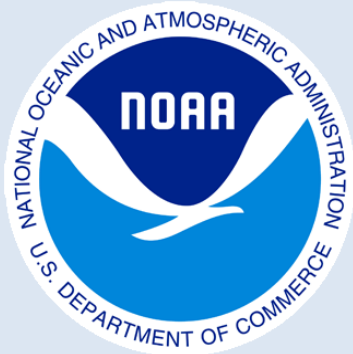


NOAA Climate Science & Services

Monthly Climate Update



Ahira Sánchez-Lugo

Climate Scientist, NOAA's National Centers for
Environmental Information

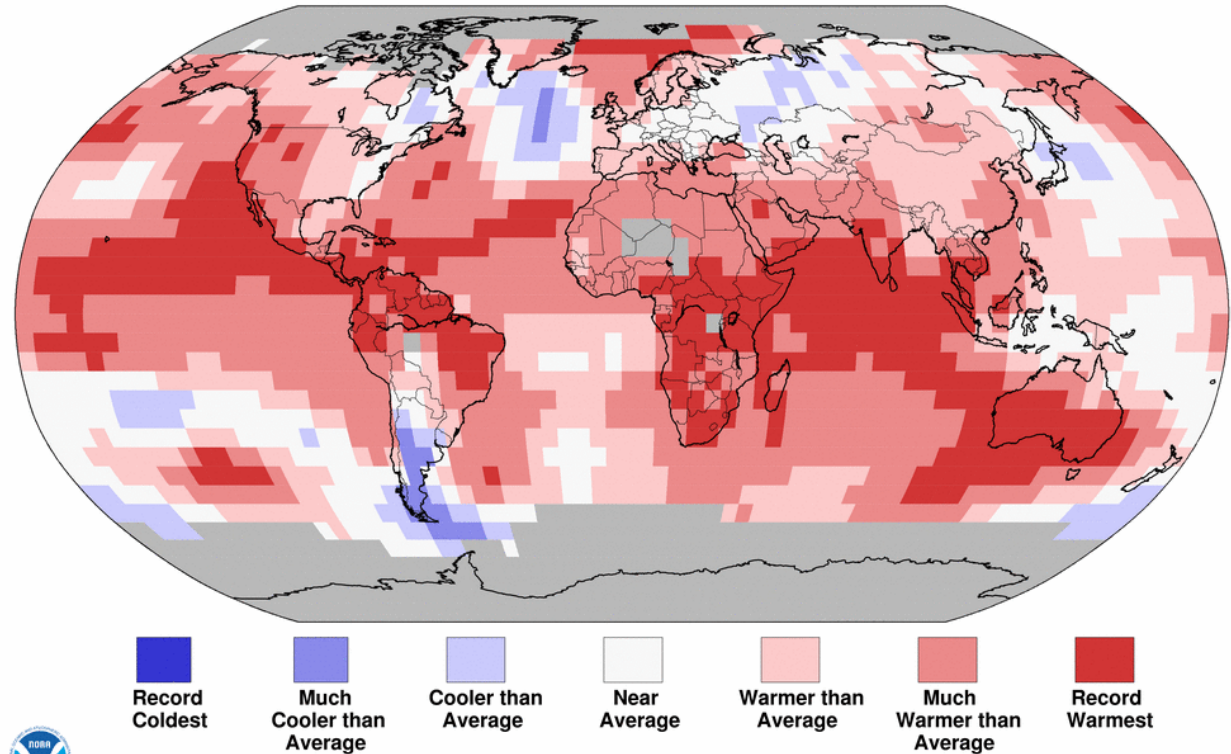
Jon Gottschalck

Chief, Operations Prediction Branch
NOAA's Climate Prediction Center

Global Temperature: October 2015

- October +1.76°F warmer than 20th century average
 - Warmest October on record
 - Largest warm departure from average for any month on record
- Land: +2.39°F
 - Warmest October
- Ocean: +1.53°F
 - Warmest October
 - Largest warm departure from average for any month

Land and Ocean Temperature Percentiles
October 2015



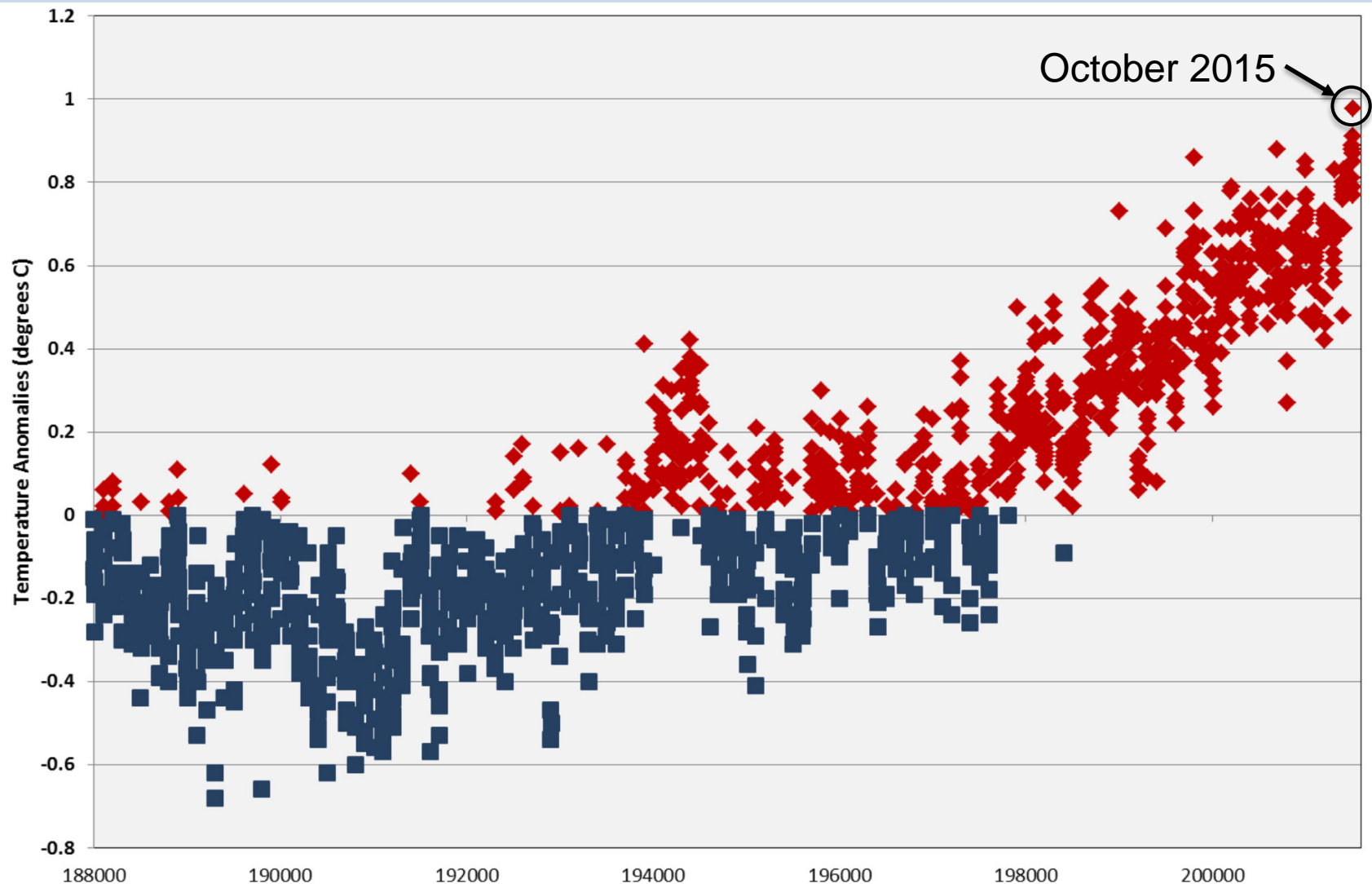
Tue Nov 17 06:54:45 EST 2015

The global temperature record dates to 1880 (136 years)

Monthly Global Temperature Anomalies

January 1880–October 2015

Base Period: 20th Century



Global Temperature: Jan-Oct 2015

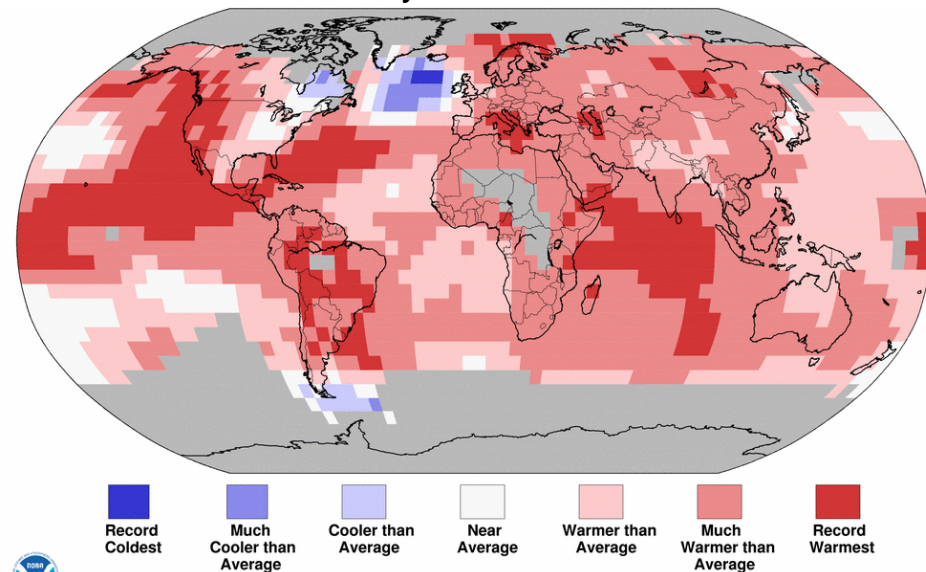
January-October 2015 was record warm for the year-to-date

Global Temperature (record warm): $+1.55^{\circ}\text{F}$

Land Temperature (record warm): $+2.30^{\circ}\text{F}$

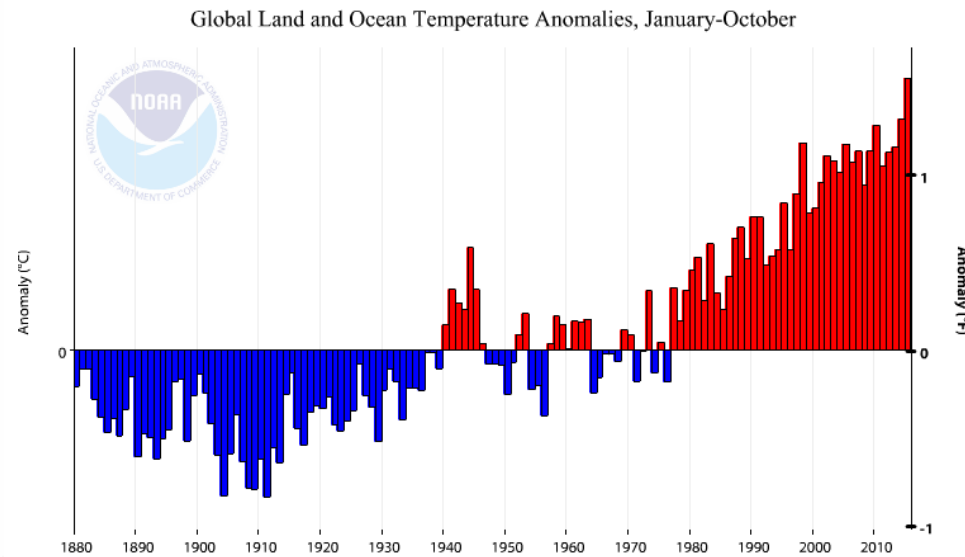
Ocean Temperature (record warm): $+1.28^{\circ}\text{F}$

Land and Ocean Temperature Percentiles
January-October 2015



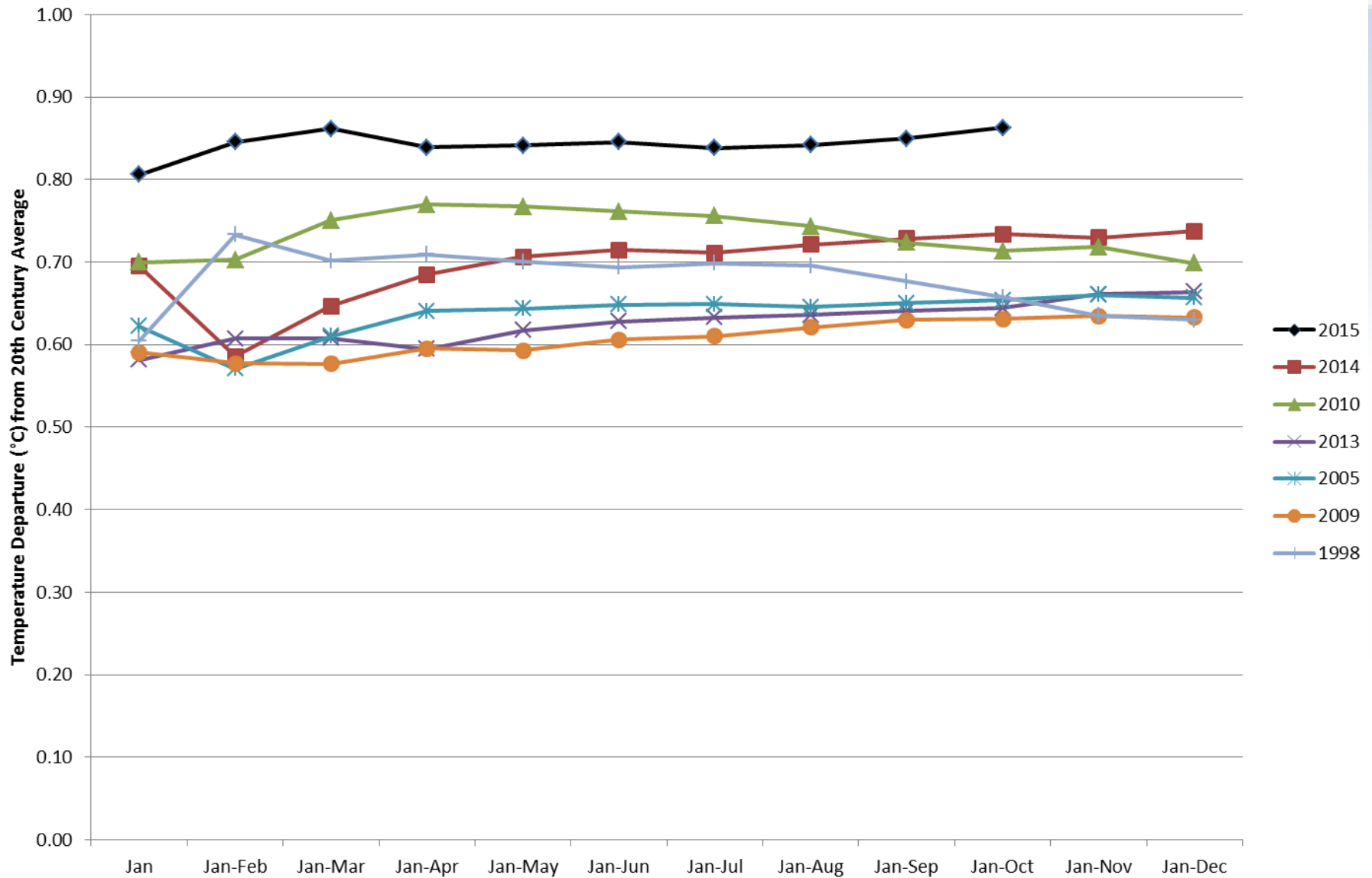
Tue Nov 17 06:54:45 EST 2015

Global Land and Ocean Temperature Departure from
20th Century Average, January-October



Year-to-Date Global Temperature

January 1880–October for 2015 and the six warmest years on record

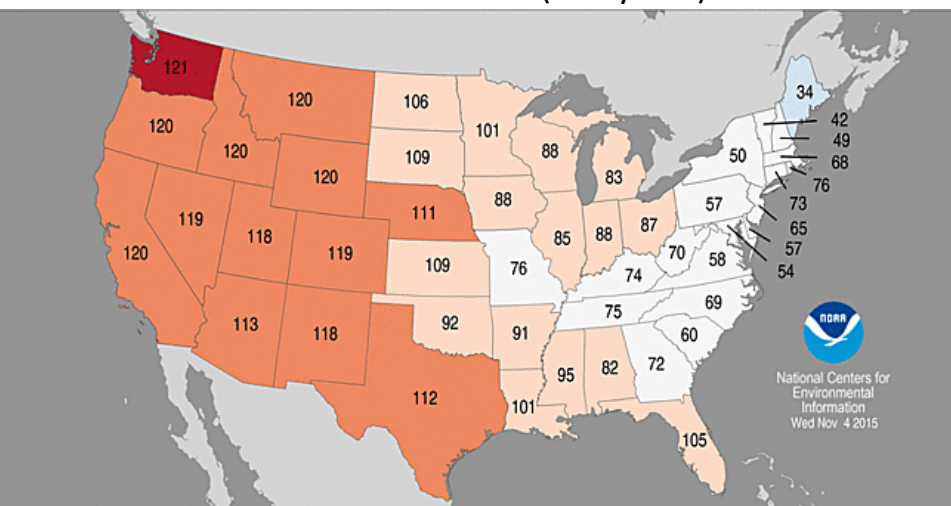


Contiguous U.S. October 2015

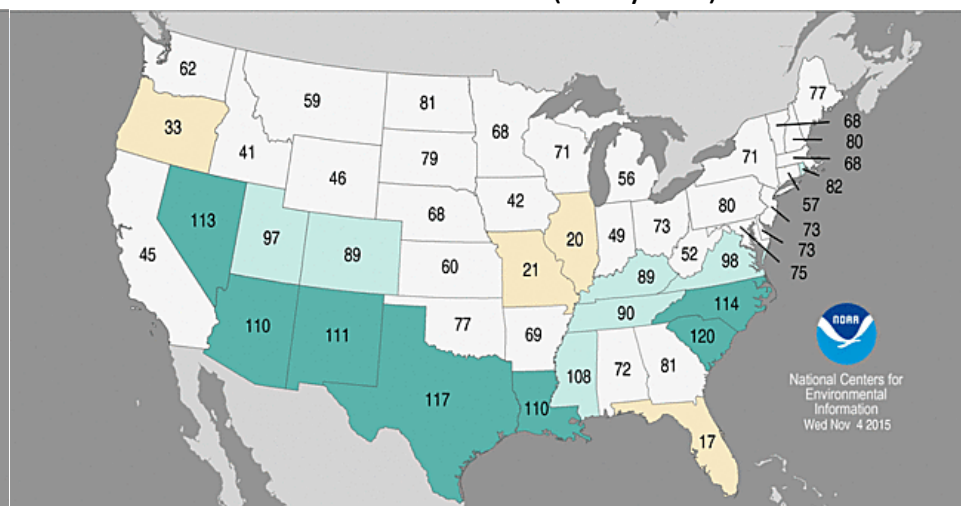
Temperature: 57.4°F, +3.3°F, 4th warmest October in 121-year record

Precipitation: 2.75", +0.59", 20th wettest October on record

Statewide Temperature Ranks, October 2015
Period: 1895-2015 (121 years)



Statewide Precipitation Ranks, October 2015
Period: 1895-2015 (121 years)



- Much-warmer-than-average conditions engulfed much of the West
 - WA was record warm
- Near-average conditions across Ohio Valley, Southeast, and Northeast

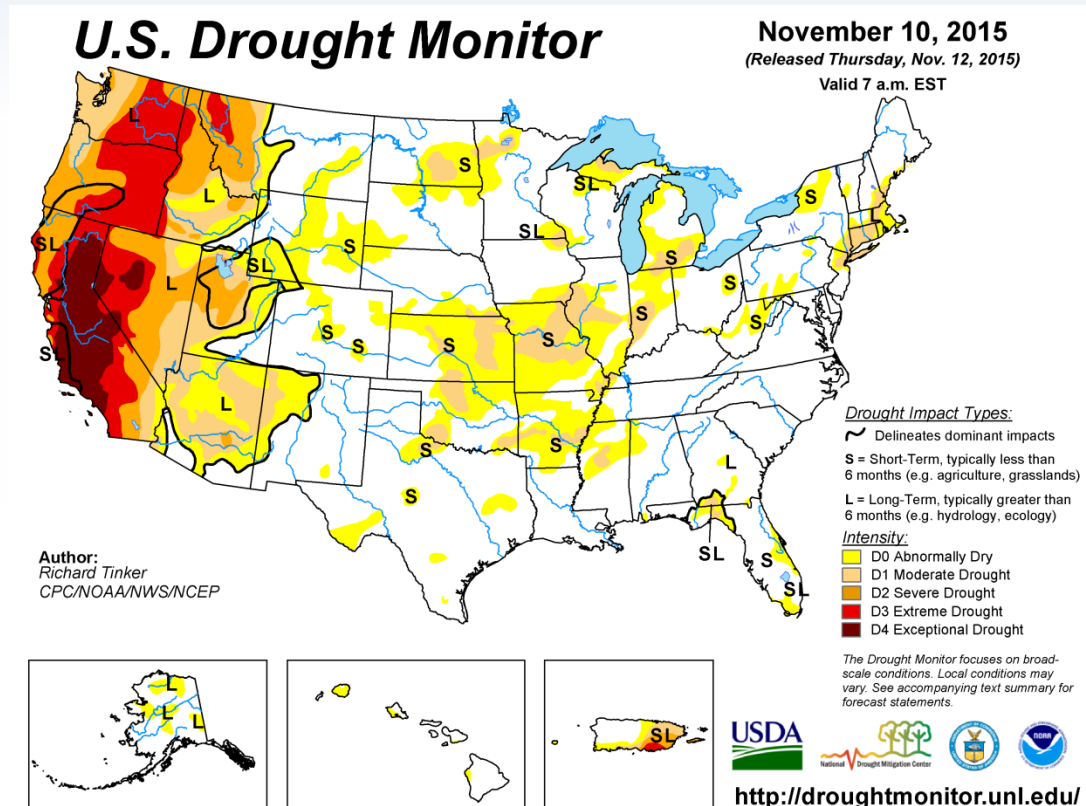
- Above-average precipitation across the southern half of the contiguous U.S.
 - SC had its second wettest October with 10.36" of precipitation or 7.37" above average

U.S. Drought

25.18% of Contiguous U.S. in Drought

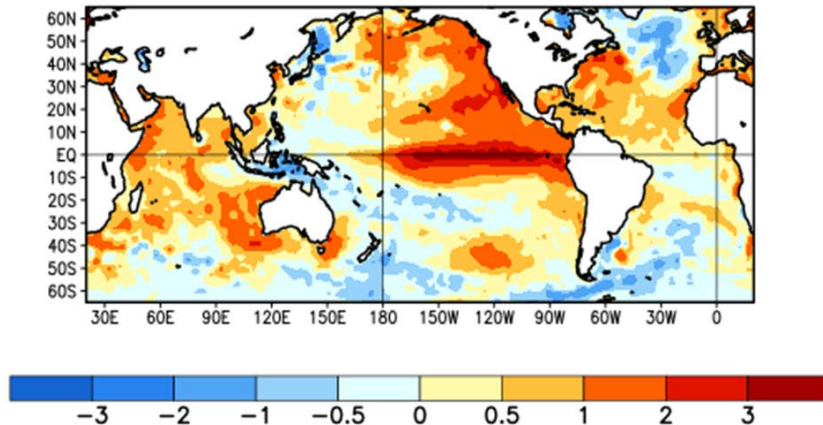
(↓ ~5.1 percentage points since end of October)

- Improvement: Southern Plains to Lower Mississippi Valley and Carolinas
- Degradation: Central and Northern Plains to Great Lakes
- Outside CONUS: Reduced drought in Puerto Rico and parts of Alaska



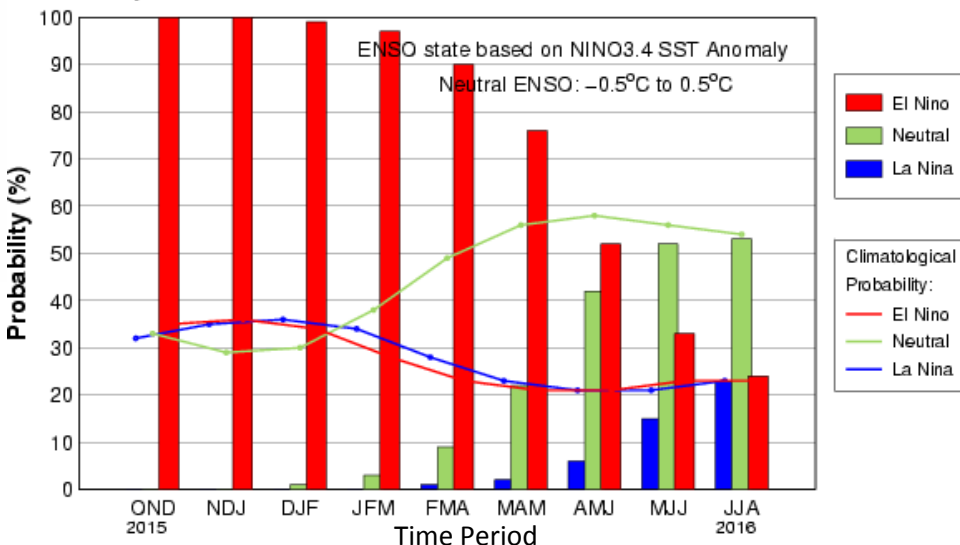
Sea Surface Temperatures and ENSO

Average SST Anomalies
18 Oct 2015 – 14 Nov 2015



- Sea surface temperatures
 - Much above normal SSTs across the equatorial Pacific
 - Above normal SSTs along the west coast of North America
 - El Nino Advisory remains in place

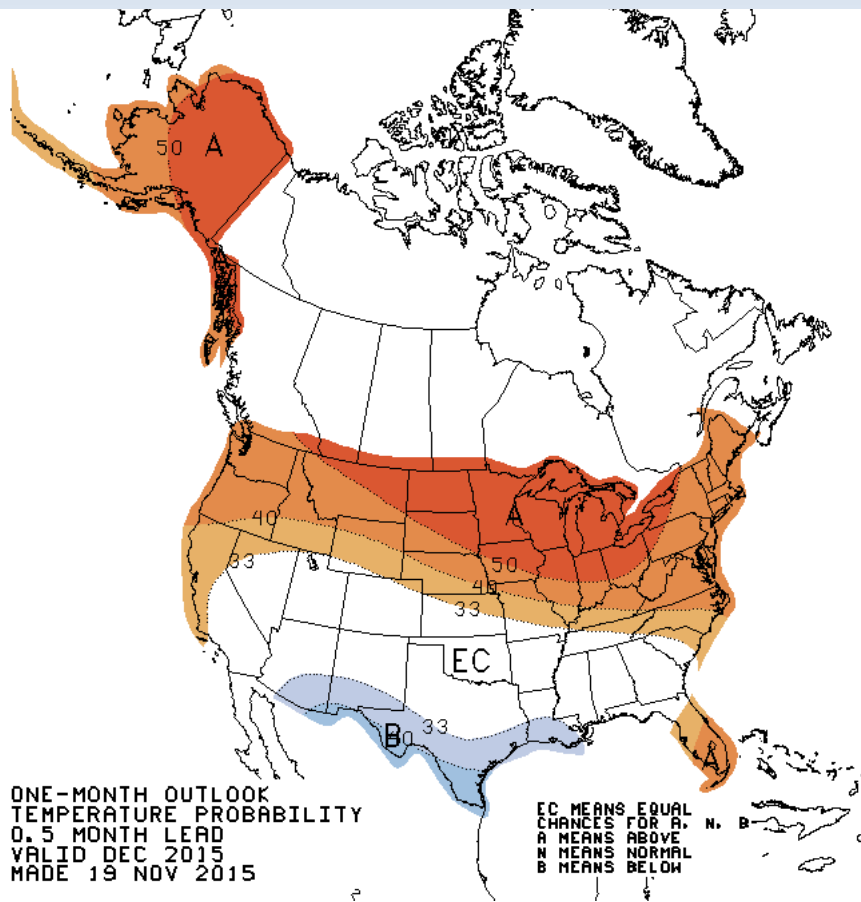
Early–Nov CPC/IRI Consensus Probabilistic ENSO Forecast



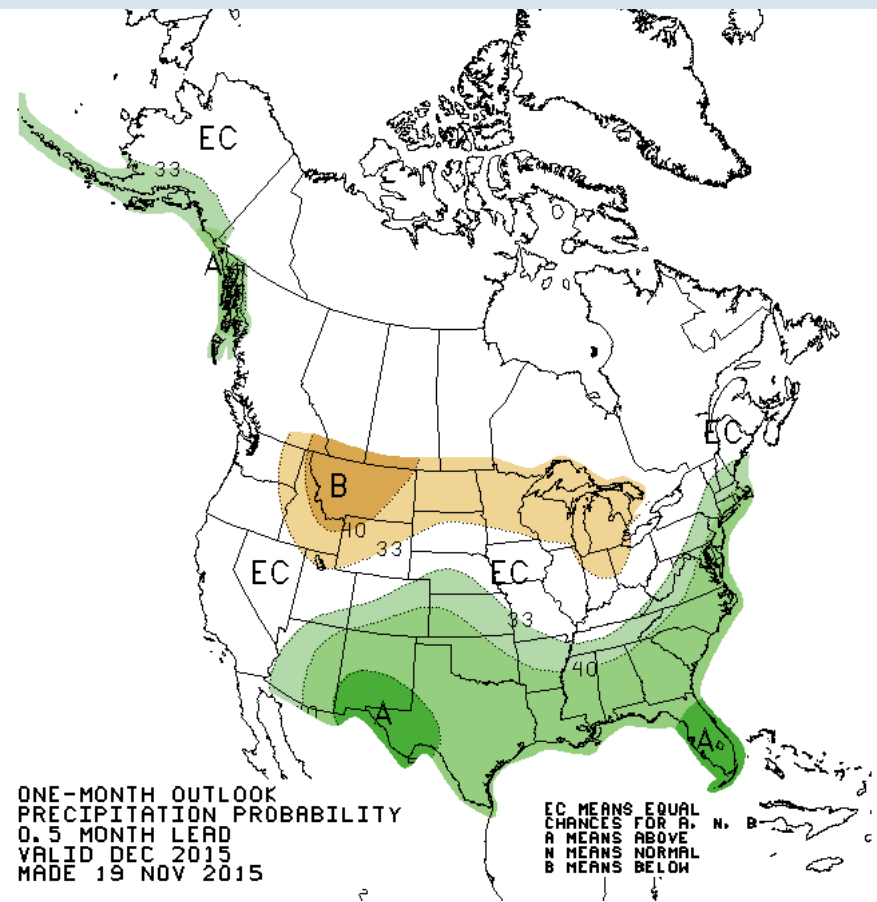
- ENSO forecast
 - The chance of El Nino is greater than 95% through winter 2015
 - El Nino will likely peak during winter 2015-2016
 - A transition to ENSO neutral is anticipated during the late spring or early summer 2016

Monthly Forecast (December)

December Average
Temperature Probability

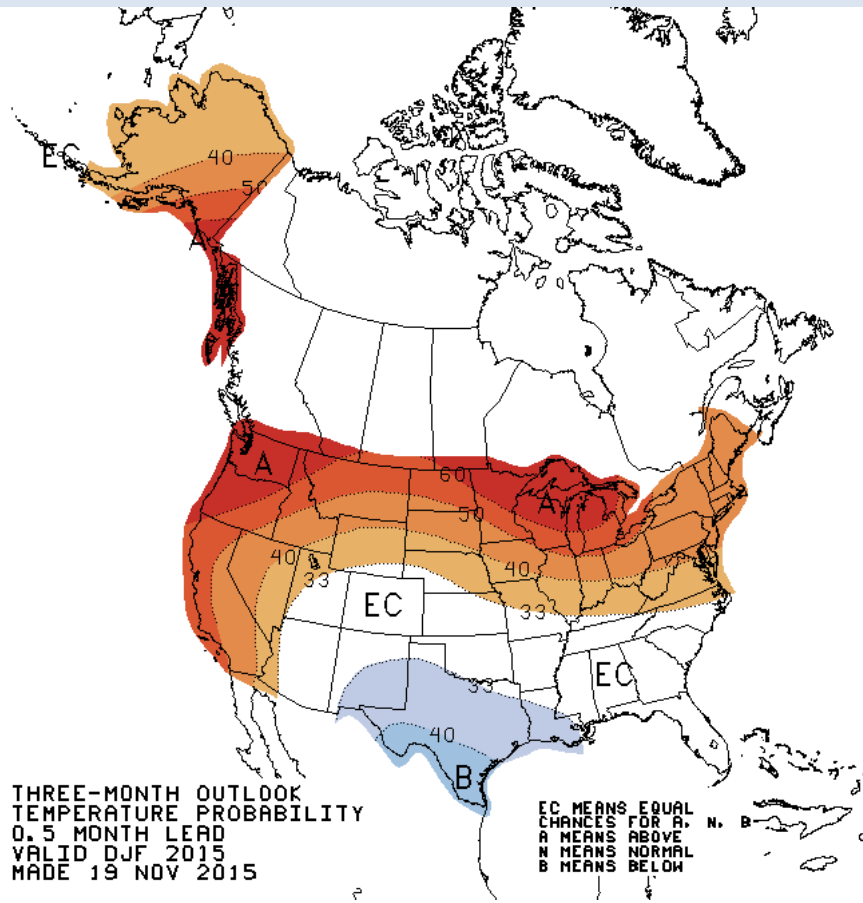


December Total
Precipitation Probability

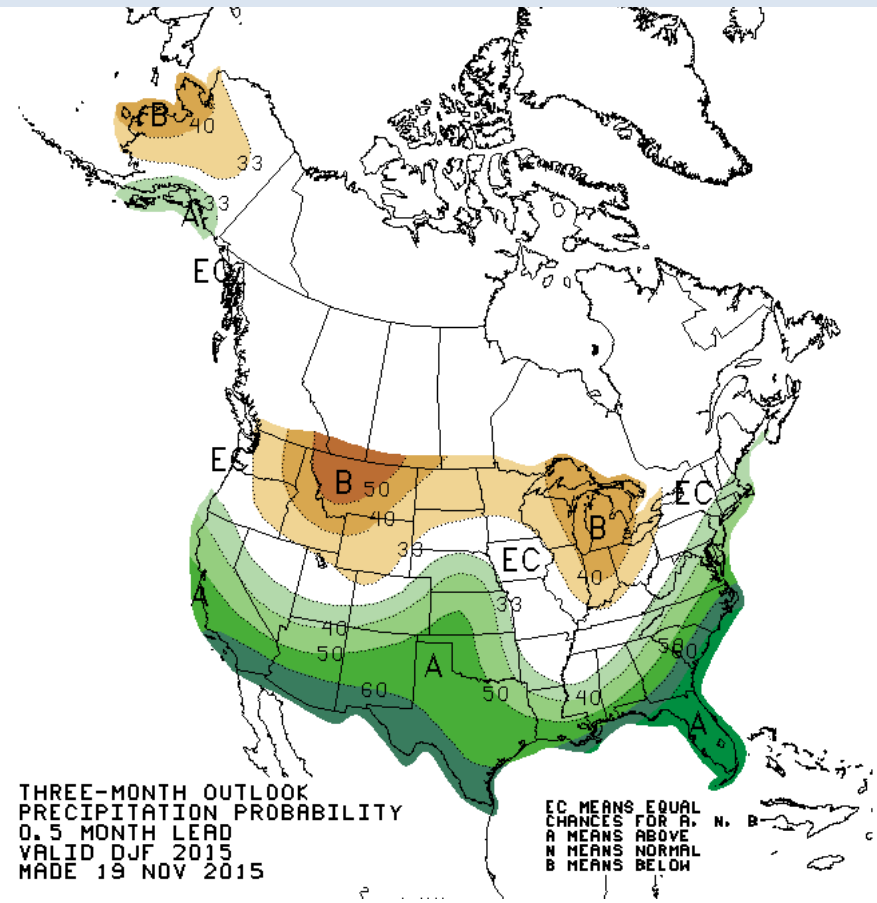


Seasonal Forecast (Dec-Jan-Feb)

Dec-Jan-Feb Average
Temperature Probability

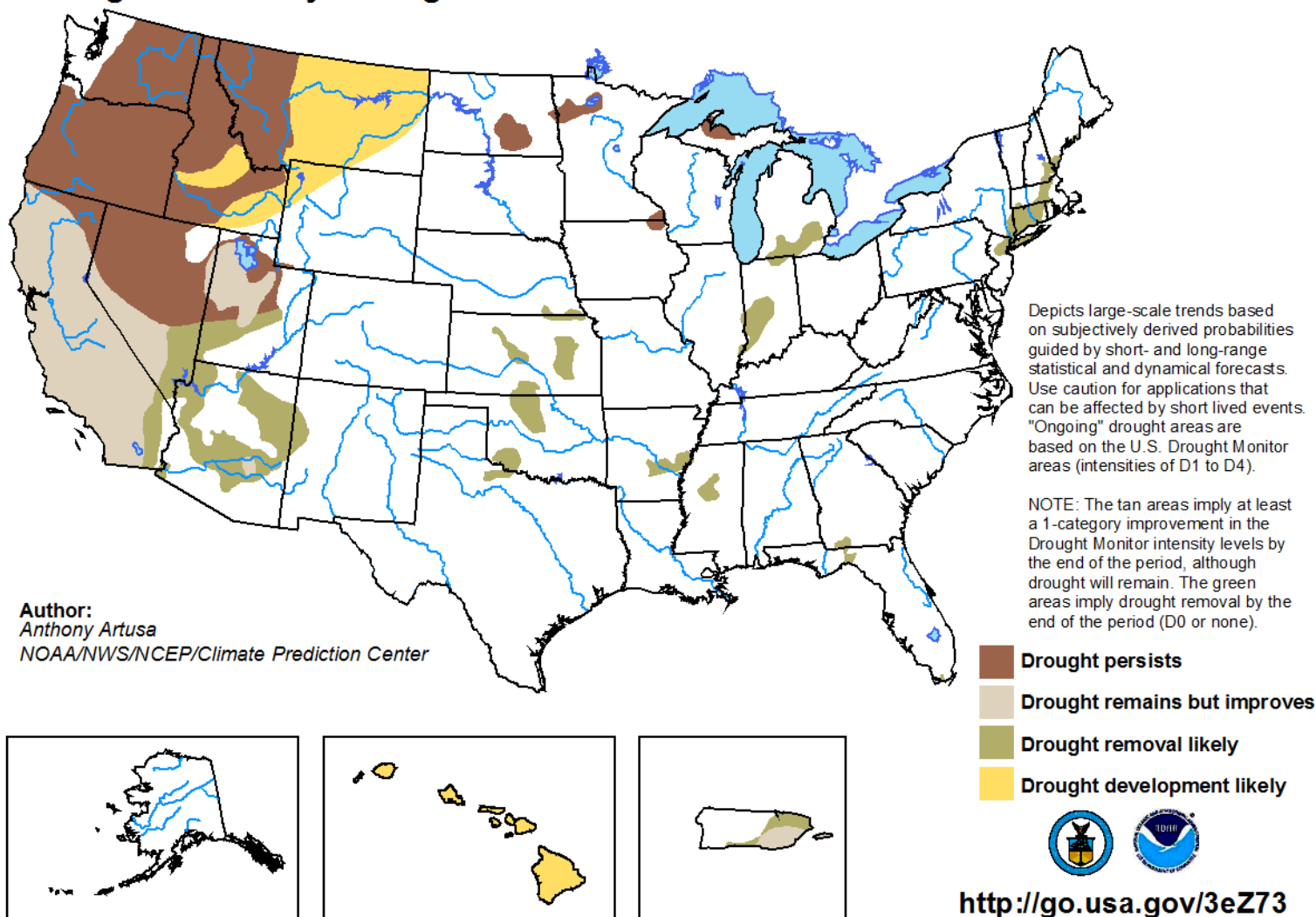


Dec-Jan-Feb Total
Precipitation Probability



U.S. Drought Outlook

U.S. Seasonal Drought Outlook Valid for November 19 - February 29, 2016
Drought Tendency During the Valid Period Released November 19, 2015



<http://go.usa.gov/3eZ73>

For More Information



TODAY'S PRESENTATION:

- <http://www.ncdc.noaa.gov/sotc/briefings>

NOAA's National Centers for Environmental Information: www.ncdc.noaa.gov

- Monthly climate reports (U.S. & Global): www.ncdc.noaa.gov/sotc/
- Dates for upcoming reports: <http://www.ncdc.noaa.gov/monitoring-references/dyk/monthly-releases>

NOAA's Climate Prediction Center: www.cpc.ncep.noaa.gov

U.S. Drought Monitor: <http://drought.gov>

Climate Portal: www.climate.gov

NOAA Media Contacts:

- Brady.Phillips@noaa.gov, 202-482-2365 (Office of Communications)
- Katy.Matthews@noaa.gov, 828-257-3136 (National Centers for Environmental Information)